

TAKAHASHI *et al.*, 09/811,606  
Amdt. dated 21 May 2004  
Reply to final Office Action of 21 January 2004

520.39871X00/NT0318US1  
Page 9

### REMARKS

This Amendment After Final Rejection is responsive to the final Office Action identified above, and in any other manner indicated below.

### PENDING CLAIMS

Claims 1-12, 15-17, 19 and 21-22 were pending, and Claim 22 was under consideration and subject to examination in the Office Action. Appropriate claims have been amended, cancelled and/or added (without prejudice or disclaimer) in order to adjust a clarity and/or focus of Applicant's claimed invention. That is, such changes are unrelated to any prior art or scope adjustment and are simply refocused claims in which Applicant is present interested. At entry of this paper, Claims 1-6, 15-17 and 21-26 are pending for further consideration and examination in the application.

### REJECTION UNDER §112, 2<sup>ND</sup> PARAGRAPH - TRAVERSED

Claim 22 has been rejected under 35 USC §112, 2<sup>ND</sup> paragraph, as being indefinite for the concerns listed at Item 6 on pages 2 and 3 of the Detailed Action. Claim 22 has been carefully reviewed and carefully amended where appropriate in order to address the Office Action listed concerns. Specifically, it is noted that Claim 22's "soft magnetic oxide material" has been corrected to "soft magnetic material," and it is noted that Applicant's specification page 20 discloses FIG. 6's magnetic domain control layer 601 as being also made of CoCrPt which is a magnetic material. As the foregoing is believed to have addressed all '112 second

TAKAHASHI *et al.*, 09/811,606  
Amdt. dated 21 May 2004  
Reply to final Office Action of 21 January 2004

520.39871X00/NT0318US1  
Page 10

paragraph concerns, reconsideration and withdrawal of the §112 second paragraph rejection are respectfully requested.

#### **WITHDRAWAL OF FURTHER CLAIMS FROM CONSIDERATION - TRAVERSED**

The alleged characterization of further ones of Applicant's claims as not being directed to the elected species/FIG.6, and the attempted withdrawal of such claims from consideration, are respectfully traversed.

More particularly, for example, claim 1 and its dependent claims 15 and 16 are readable on Species D, FIG. 6, for the following reasons. That is, elected FIG. 6 shows a pair of the magnetic domain control layers (601). On the other hand, FIG. 7 shows two pairs of the magnetic control layers (701 and 502). Claim 1 describes one pair of the magnetic domain control layers, thus being directed to elected FIG. 6.

Office Action comments appear to be attempting to characterize ones of Applicant's claims as being directed to the FIG. 7 species premised upon "granular" limitations. However, it is respectfully submitted that such characterization is incorrect/improper, as "granular" material is useable with either of Applicant's FIG. 6 or FIG. 7 species. More particularly, as clearly taught at, e.g., page 7, lines 22-25 of the specification, the material of the magnetic control layer is either (1) a magnetic oxide having a spinel lattice; or (2) a granular magnetic material made of a hard magnetic metal material and a non-magnetic insulating material. The materials are applicable to the magnetic domain control layer in FIG. 6.

In addition to the above, Applicant has reintroduced a linking claim 26. That is, all of Applicant's pending independent claims contain linking Claim 26's limitations

TAKAHASHI *et al.*, 09/811,606  
Amdt. dated 21 May 2004  
Reply to final Office Action of 21 January 2004

520.39871X00/NT0318US1  
Page 11

As a result of all of the foregoing, it is respectfully submitted that all remaining claims within the application (including independent claim 1 and claims dependent therefrom) are readable on FIG. 6. Consideration and examination of all remaining claims are respectfully requested.

### REJECTION UNDER 35 USC §102

The 35 USC §102 rejection of Claim 22 as being anticipated by Fontana, Jr. *et al* (US 5,729,410 A) is respectfully traversed. Such a rejection has been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal arguments are not appropriate at this time. However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims.

All descriptions of Applicant's disclosed and claimed Invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated herein by reference. Further, all Office Action statements regarding the prior art rejections are respectfully traversed. As additional arguments, Applicant respectfully submits the following.

In order to properly support a §102 anticipatory-type rejection, any applied art reference must disclose each and every limitation of any rejected claim. The applied art does not adequately support a §102 anticipatory-type rejection because, at minimum, such applied art does not disclose (or suggest) the following discussed limitations of Applicant's claims.

TAKAHASHI *et al.*, 09/811,606  
Amdt. dated 21 May 2004  
Reply to final Office Action of 21 January 2004

520.39871X00/NT0318US1  
Page 12

More particularly, claim 22 contains the features/limitations: "...magnetic domain control layers, wherein said magnetic domain control layer disposed on opposite ends of the magnetoresistive sensor layer in the region from the end surface of the media-opposed surface side of the magnetoresistive sensor layer to the depth position comprises a layer made of a soft magnetic material having high electric resistivity disposed in contact with opposite ends of said magnetoresistive sensor layer, and a hard magnetic layer, disposed outside the soft magnetic material, made of a metal magnetic material having a composition including at least one of the elements of Co (cobalt), Cr (chromium), Pt (platinum), Ta (tantalum), and Nb (niobium).

Fontana, Jr. et al. does not disclose or suggest such feature/limitations. More particularly, Fontana, Jr. et al., at best, discloses use of a significantly thick insulating layer 160 in contact with Fontana, Jr. et al.'s ferromagnetic layers 118 and 132.

(Other ones of Applicant's pending claims likewise contain similar or analogous (or other) features/limitations precluding a 35 USC 102 anticipatory-type rejection of such claims based upon the applied Fontana, Jr. et al. reference.)

As a result of all of the foregoing, it is respectfully submitted that the applied art would not support a §102 anticipatory-type rejection of Applicant's claims. Accordingly, reconsideration and withdrawal of such §102 rejection, and express written allowance of all claims, are respectfully requested.

#### RESERVATION OF RIGHTS

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present

TAKAHASHI *et al.*, 09/811,606  
Amdt. dated 21 May 2004  
Reply to final Office Action of 21 January 2004

520.39871X00/NT0318US1  
Page 13

application are without prejudice or disclaimer. That is, any above statements, or any present amendment or cancellation of claims (all made without prejudice or disclaimer), should not be taken as an indication or admission that any objection/rejection was valid, or as a disclaimer of any scope or subject matter. Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, *i.e.*, Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

#### ENTRY AFTER FINAL REJECTION

For all of the foregoing reasons, Applicant submits that the present paper should be entered since it places the rejected claims in condition for allowance by complying with the Examiner's requirements and/or amending and/or arguing the claims to distinguish such claims from the applied prior art.

Alternatively, this response should be entered since it presents the rejected claims in better form for consideration on appeal.

#### EXAMINER INVITED TO TELEPHONE

The Examiner is invited to telephone the undersigned at the local D.C. area number of 703-312-6600, to discuss an Examiner's Amendment or other suggested action for accelerating prosecution and moving the present application to allowance.

TAKAHASHI *et al.*, 09/811,606  
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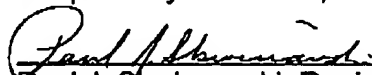
520.39871X00/NT0318US1  
Page 14

### CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above application are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

A Petition for an appropriate extension of the shortened statutory period for response set by the Office Action mailed 21 January 2004 is filed concurrently herewith. To whatever other extent is actually required, Applicant petitions for an extension of time under 37 CFR §1.136. Also filed concurrently is a Form PTO-2038 authorizing payment of the requisite Petition and additional claim fees. Please charge any shortage in the fees due in connection with the filing of this paper to Deposit Account No. 01-2135 (referencing case No. 520.39871X00).

Respectfully submitted,



Paul J. Skwierawski, Registration No. 32,173  
ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 North Seventeenth Street, Suite 1800  
Arlington, Virginia 22209-3801, USA  
Telephone 703-312-6600  
Facsimile 703-312-6666

Attachments:

Petition for Extension of Time  
Form PTO-2038 (Fee Codes 1201/1251)